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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/722,366	11/25/2003	Peter Zimmermann	GK-OEH-232/500814.20134	8580

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EXAMINER

WASHBURN, DOUGLAS N

ART UNIT PAPER NUMBER

2863

DATE MAILED: 12/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/722,366

Applicant(s)

ZIMMERMANN ET AL.

Examiner

Douglas N. Washburn

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☒ Claim(s) 4 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 25 November 2003, 1 June 2004, 8 August 2005
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION***Drawings***

1 The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the distributor (15) must be shown or the feature canceled from the claims. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. **Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d).** If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2 Claims 1-4 are objected to because of the following informalities:

Claim 1 recites "Multi-channel metering apparatus with automatic calibration with several dispensing channels (1) respectively with **a nozzle** (2) and **a micro-valve** (4), whereby **the micro-valves** (4) respectively exhibit a discharge opening (3), which is respectively connected with one of **the nozzles** (2) and at least one supply opening (5 or 6) is respectively present on **the micro-valves** (4), which are respectively connected with **an outlet** of a distributor (8, 13 or 15), the inlet of which is indirectly connected via a flow sensor (10) with a vessel (9, 14 or 17) filled with a fluid and **the paths** between the inlet and **the outlets** of the distributor exhibit the same fluidic resistance as well as a pressure source (19) to **produced** overpressure in the vessel (9, 14 or 17) and a control unit (16) connected with the flow sensor (10) and **the micro-valves** (4) and generates **the individual control signals** for **the micro-valves** (4) from **the measured values** received from the flow sensor (10)." wherein the micro-valves, the nozzles, the paths, the outlets, the individual control signals and the measured values lack antecedence;

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Examiner suggests "Multi-channel metering apparatus with automatic calibration with several dispensing channels (1) respectively with a nozzle (2) and a micro-valve (4), whereby a plurality of [the micro-valves] (4) respectively each exhibit a discharge opening (3), which is respectively connected with one of a plurality of [the] nozzles (2) and at least one supply opening (5 or 6) is respectively present on the micro-valves (4), which are respectively connected with an outlet of a distributor (8, 13 or 15), the inlet of which is indirectly connected via a flow sensor (10) with a vessel (9, 14 or 17) filled with a fluid and [the] paths between the inlet and a plurality of [the] outlets of the distributor exhibit the same fluidic resistance as well as a pressure source (19) to produce [produced] overpressure in the vessel (9, 14 or 17) and a control unit (16) connected with the flow sensor (10) and the micro-valves (4) and generates [the] individual control signals for the micro-valves (4) from [the] measured values received from the flow sensor (10)."

Claim 2 recites "Multi-channel metering apparatus in accordance with Claim 1, characterized by, the fact that the supply openings (5 or 6) are first supply openings (5) and second supply openings (6), whereby the first supply openings (5) are respectively connected with an outlet of the distributor (8, 13 or 15), which here is a calibration medium distributor (8) filled with a calibration medium, and the second supply openings (6) which respectively exhibit a connection with a respective dispensing medium vessel (12) such that at the first supply openings (5) the calibration fluid and at the second supply openings (6) the dispensing fluid is available and on admission of the vessel (9, 14 or 17), which here is a calibration medium vessel (9) with pressure via an opened micro-valve (4) calibration fluid is delivered, whereby the dispensing channels are calibrated in relation to each other with the calibration fluid." wherein **the dispensing channels** lacks antecedence;

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Examiner suggests "Multi-channel metering apparatus in accordance with Claim 1, characterized by[,] the fact that the supply openings (5 or 6) are first supply openings (5) and second supply openings (6), whereby the first supply openings (5) are respectively connected with an outlet of the distributor (8, 13 or 15), which here is a calibration medium distributor (8) filled with a calibration medium, and the second supply openings (6) which respectively exhibit a connection with a respective dispensing medium vessel (12) such that at the first supply openings (5) the calibration fluid and at the second supply openings (6) the dispensing fluid is available and on admission of the vessel (9, 14 or 17), which here is a calibration medium vessel (9) with pressure via an opened micro-valve (4) calibration fluid is delivered, whereby [the] dispensing channels are calibrated in relation to each other with the calibration fluid."

Claim 3 recites "Multi-channel metering apparatus in accordance with Claim 1, characterized by, the fact that the supply openings (5 or 6) are first supply openings (5) and second supply openings (6), whereby the first supply openings (5) are respectively connected with an outlet of the distributor (8, 13 or 15), which here is a calibration medium distributor (8) filled with a calibration medium, and the second supply openings (6) respectively exhibit a connection with a dispensing medium vessel (12) such that at the first supply openings (5) and at the second supply openings (6) the dispensing fluid is available and on admission of the vessel (9, 14 or 17), which here is a calibration medium vessel (9) with pressure via an opened micro-valve (4) dispensing fluid is delivered, whereby the dispensing channels can be calibrated in relation to each other with different dispensing fluid." wherein **the dispensing channels** lacks antecedence;

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Examiner suggests "Multi-channel metering apparatus in accordance with Claim 1, characterized by[,] the fact that the supply openings (5 or 6) are first supply openings (5) and second supply openings (6), whereby the first supply openings (5) are respectively connected with an outlet of the distributor (8, 13 or 15), which here is a calibration medium distributor (8) filled with a calibration medium, and the second supply openings (6) respectively exhibit a connection with a dispensing medium vessel (12) such that at the first supply openings (5) and at the second supply openings (6) the dispensing fluid is available and on admission of the vessel (9, 14 or 17), which here is a calibration medium vessel (9) with pressure via an opened micro-valve (4) dispensing fluid is delivered, whereby [the] dispensing channels can be calibrated in relation to each other with different dispensing fluid."

Claim 4 recites "Multi-channel metering apparatus in accordance with Claim 1, characterized by, that the distributor (8, 13 or 15) is a rinsing agent distributor (13) and the vessel (9, 14 or 17) is a rinsing agent vessel (14) and both are indirectly connected with each other, whereby in parallel to the flow through the flow sensor (10) a bypass (20) is present which allows for a high throughput volume of the purging fluid." wherein **the purging fluid** lacks antecedence;

Examiner suggests "Multi-channel metering apparatus in accordance with Claim 1, characterized by[,] the fact that the distributor (8, 13 or 15) is a rinsing agent distributor (13) and the vessel (9, 14 or 17) is a rinsing agent vessel (14) and both are indirectly connected with each other, whereby in parallel to the flow through the flow sensor (10) a bypass (20) is present which allows for a high throughput volume of [the] purging fluid."

Correction is required.

Claim Rejections - 35 USC § 112

3 The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 recites "Multi-channel metering apparatus in accordance with Claim 1, **characterized by, that the distributor** (8, 13 or 15) is a rinsing agent distributor (13) and the vessel (9, 14 or 17) is a rinsing agent vessel (14) and both are indirectly connected with each other, whereby in parallel to the flow through the flow sensor (10) a bypass (20) is present which allows for a high throughput volume of the purging fluid." lacks clarity and is unclear.

Examiner note: for purpose of examination examiner interprets claim 4 as follows:

Claim 4 recites "Multi-channel metering apparatus in accordance with Claim 1, characterized by **the fact** that the distributor (8, 13 or 15) is a rinsing agent distributor (13) and the vessel (9, 14 or 17) is a rinsing agent vessel (14) and both are indirectly connected with each other, whereby in parallel to the flow through the flow sensor (10) a bypass (20) is present which allows for a high throughput volume of the purging fluid."

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Claim Rejections - 35 USC § 102

4 The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Johnson et al. (US 6,983,636) (Hereafter referred to as Johnson).

Johnson teaches:

Multi-channel metering apparatus (liquid handling system; column 6, line 23; figure 1, element 20) with automatic calibration (column 22, lines 1-6) with several dispensing channels (1) (dispensing orifices; column 13, lines 63-65; figure 4, element 35) respectively with a nozzle (2) (nozzles; column 5, lines 32-35; figure 9, element 35) and a micro-valve (4) (dispensing actuators; column 8, line 47; figure 3, element 32), whereby the micro-valves (4) respectively exhibit a discharge opening (3) (fluid communication passageway; column 6, line 34; figure 2, element 33), which is respectively connected with one of the nozzles (2) (figure 2) and at least one supply opening (5 or 6) (fluid pressure line; column 6, lines 29-31; figure 2, element 30) is respectively present on the micro-valves (4), which are respectively connected with an outlet of a distributor (8, 13 or 15) (pressure subsystem; column 6, line 24; figure 2, element 22), the inlet of which is indirectly connected via a flow sensor (10) (sensor assembly; column 16, lines 64 et seq and column 17, lines 1 and 2; figure 9, element 70) with a vessel (9, 14 or 17) (system fluid reservoir; column 6, line 28; figure 4, element 27) filled with a fluid

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(system fluid; column 6, lines 64 and 65; figure 4, element 40) and the paths between the inlet and the outlets of the distributor exhibit the same fluidic resistance as well as a pressure source (19) (fluid pressure lines; column 6, line 29; figure 3, element 28 and 30) to produced overpressure in the vessel (9, 14 or 17) (column 14, lines 58-64) and a control unit (16) (control unit; column 18, lines 17 and 18; figure 6, element 53) connected with the flow sensor (10) and the micro-valves (4) and generates the individual control signals for the micro-valves (4) from the measured values received from the flow sensor (10) (column 14, lines 45-56) in regard to claim 1;

The supply openings (5 or 6) are first supply openings (5) (figure 2, element 28) and second supply openings (6) (figure 2, element 30) ; whereby the first supply openings (5) are respectively connected with an outlet of the distributor (8, 13 or 15) (fluid dispensing source; column 6, line 31; figure 2, element 32), which here is a calibration medium distributor (8) filled with a calibration medium (system fluid; column 6, lines 64 and 65; figure 4, element 40), and the second supply openings (6) which respectively exhibit a connection with a respective dispensing medium vessel (12) (column 6, lines 44-50; figure 2, element 32) such that at the first supply openings (5) the calibration fluid and at the second supply openings (6) the dispensing fluid is available and on admission of the vessel (9, 14 or 17) (pressure subsystem; column 6, line 24; figure 2, element 22), which here is a calibration medium vessel (9) with pressure via an opened micro-valve (4) (figure 2, element 37) calibration fluid is delivered, whereby the dispensing channels are calibrated in relation to each other with the calibration fluid (column 19, lines 19-24) in regard to claim 2;

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And the supply openings (5 or 6) are first supply openings (5) and second supply openings (6), whereby the first supply openings (5) are respectively connected with an outlet of the distributor (8, 13 or 15), which here is a calibration medium distributor (8) filled with a calibration medium, and the second supply openings (6) respectively exhibit a connection with a dispensing medium vessel (12) such that at the first supply openings (5) and at the second supply openings (6) the dispensing fluid is available and on admission of the vessel (9, 14 or 17), which here is a calibration medium vessel (9) with pressure via an opened micro-valve (4) dispensing fluid is delivered, whereby the dispensing channels can be calibrated in relation to each other with different dispensing fluid (column 19, lines 19-24) in regard to claim 3.

Conclusion

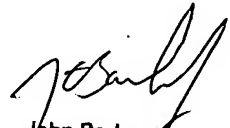
5 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Douglas N. Washburn whose telephone number is (571) 272-2284. The examiner can normally be reached on Monday through Thursday 6:30 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Barlow can be reached on (571) 272-2269. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DNW



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